

**AMENDMENTS TO THE CLAIMS**

**1. (Currently Amended)** A method for ~~diagnosing~~determining increased risk of endometriosis in a human, said method comprises:

(a) measuring an expression level of histamine releasing factor (HRF) polynucleotide in a biological sample from a human subject wherein said biological sample is menstrual blood; and

(b) comparing the HRF polynucleotide expression level with that in a normal biological sample, wherein a subject exhibiting a higher HRF polynucleotide expression level when compared with the normal biological sample is indicative of a ~~subject~~human having an increased risk of endometriosis or a subject at risk thereof.

**2. (Withdrawn)** HRF oligonucleotide which hybridizes under a stringent condition with HRF polynucleotide.

**3. (Withdrawn)** An oligonucleotide probe, which is a labeled HRF oligonucleotide of claim 2.

**4. (Withdrawn)** A DNA microarray having as a target capture probe the HRF oligonucleotide of claim 2 or an HRF polynucleotide.

**5. (Withdrawn)** A primer set for PCR amplification of an HRF polynucleotide.

**6. (Currently Amended)** A method for ~~diagnosing~~determining increased risk of endometriosis in a human, said method comprising:

(a) preparing RNA from a biological sample of a human subject, wherein said biological sample is menstrual blood;

(b) subjecting the RNA prepared in step (a) to an electrophoretic separation;

(c) hybridizing the RNA prepared in step (b) with a labeled HRF oligonucleotide probe that hybridizes under a stringent condition with HRF polynucleotide;

(d) comparing the signal level of the labeled HRF oligonucleotide probe which hybridized with the RNA in step (c) as an index of the HRF polynucleotide expression level with a result of a normal biological sample; and,

(e) using a higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting ~~the degree~~ increased risk of endometriosis ~~or risk thereof~~.

**7. (Currently Amended)** A method for ~~diagnosing~~ determining increased endometriosis- in a human, said method comprising:

(a) preparing RNA from a biological sample of a human subject, wherein said biological sample is menstrual blood;

(b) preparing a labeled cDNA from the RNA prepared in step (a);

(c) contacting the labeled cDNA prepared in step (b) with a DNA microarray having as a target capture probe an HRF polynucleotide or an HRF oligonucleotide that hybridizes under a stringent condition with HRF polynucleotide;

(d) comparing the signal level of the labeled cDNA which hybridized with the capture probe of the DNA microarray in step (c) as an index of the HRF polynucleotide expression level with a result of a normal biological sample; and,

(e) using a higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting ~~the degree~~ increased risk of endometriosis ~~or risk thereof~~.

**8. (Currently Amended)** A method for ~~diagnosing~~ determining increased risk of endometriosis, said method comprising:

(a) preparing RNA from a biological sample of a human subject, wherein said biological sample is menstrual blood;

(b) synthesizing a cDNA using a primer set for PCR amplification of an HRF polynucleotide with the RNA prepared in step (a) as a template;

(c) comparing the level of the cDNA prepared in step (b) as a HRF polynucleotide expression index with a result of a normal biological sample; and,

(d) using a higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting the degree increased risk of endometriosis or risk thereof.

**9. (Cancelled)**

**10. (Withdrawn)** A therapeutic agent for an endometriosis-related disease comprising a molecule which inhibits the expression of an intracellular HRF polynucleotide.

**11. (Withdrawn)** A method for treating an endometriosis-related disease comprising administering a molecule which inhibits the expression of an intracellular HRF polynucleotide.